Applicant Initiated Interview Request Form

Application No.: 10/804,758   First Named Applicant: Feller, Walter S.

Examiner: Michael Zanelli   Art Unit: _____   Status of Application: _____

Tentative Participants:
(1) Mark Brown   (2) Michael Zanelli

(3) _____   (4) _____

Proposed Date of Interview: 02/20/2008 OR
                            02/27/2008

Proposed Time: 2:00 (AM/PM)
Proposed Time: 2:00 PM

Type of Interview Requested:
(1) [ ] Telephonic   (2) [X] Personal   (3) [ ] Video Conference

Exhibit To Be Shown or Demonstrated: [ ] YES   [X] NO
If yes, provide brief description: _____

Issues To Be Discussed

Issues (Rej., Obj., etc)	Claims/ Fig. #	Prior Art	Discussed	Agreed	Not Agreed
(1) Rej.	14	of record	[✓]	[✓]	[ ]
(2)			[ ]	[ ]	[ ]
(3)			[ ]	[ ]	[ ]
(4)			[ ]	[ ]	[ ]

[ ] Continuation Sheet Attached

Brief Description of Arguments to be Presented:

Proposed amendments to claim 14 overcome Section 112 rejections.
Identification of supporting disclosure in specification.

An interview was conducted on the above-identified application on 2/19/08

NOTE: This form should be completed by applicant and submitted to the examiner in advance of the interview (see MPEP § 713.01).

This application will not be delayed from issue because of applicant's failure to submit a written record of this interview. Therefore, applicant is advised to file a statement of the substance of this interview (37 CFR 1.133(b)) as soon as possible.

Mark Brown
Applicant/Applicant's Representative Signature

Mark Brown
Typed/Printed Name of Applicant or Representative

30,361
Registration Number, if applicable

[Examiner signature]
Examiner's Signature

DRAFT CLAIM – PLEASE DO NOT ENTER

Satellite Position and Heading Sensor for Vehicle Steering Control

Application No. 10/804,758

2/13/08

14. (currently amended) A sensor system for controlling a vehicle steering system, which sensor system comprises:

a global navigation satellite sensor (GNSS) attitude subsystem including a receiver and multiple antennas connected to said receiver at a fixed spacing, said GNSS attitude subsystem computing ~~reference~~ vehicle attitude ~~angles~~;

a yaw gyroscope connected to said GNSS attitude subsystem and configured to derive and provide outputs including a yaw angle and a yaw angle rate of change;

~~said GNSS attitude subsystem including~~ a function for ~~calibrating~~ reducing bias and ~~scale factor~~ drift errors in the yaw gyroscope using said ~~reference~~ vehicle attitude ~~angles~~; ~~and~~

a steering control subsystem connected to said yaw gyroscope and said GNSS attitude subsystem and using said yaw angle and yaw angle rate of change outputs from said yaw gyroscope for computing and outputting steering control commands to the vehicle steering system from the current position and heading to the desired position and heading; and

a function for automatically calibrating said steering control commands using GNSS-derived vehicle position.

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Overcoming 35 U.S.C. § 112 (1) objection:

GNSS attitude subsystem for computing reference attitude angles and a function for calibrating bias and scale factor errors in a yaw gyroscope using computed reference angles not clearly described in original application.

Claim 14 (As Currently Amended)	Original Specification Support
GNSS attitude subsystem computing vehicle attitude	[0017] ... The sensor system utilizes a plurality of GPS carrier phase differenced antennas to derive attitude information.
A function for reducing bias and drift errors in the yaw gyroscope using said vehicle attitude	[0020] Another benefit is that achieved by incorporating a GPS-based heading sensor is the elimination or reduction of drift and biases resultant from a gyro-only or other inertial sensor approach. ...
A function for automatically calibrating said steering control commands using GNSS-derived vehicle position	[0041] ... The sensor system 20 measures response of the vehicle 10 as depicted at process block 350 and calculates the response times and characteristics for the vehicle. For example, a selected command is applied and the proportionality of the turn measured given the selected change in steering. Turning to process block 360, the responses of the vehicle are then used to calibrate the control commands applying a modified control command to achieve a desired response. It will be appreciated that such an auto-calibration feature would possibly be limited by constraints of the

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	vehicle to avoid excess stress or damage as depicted at 370.
	Method flowchart Fig. 6 shows calibration step 360.

Overcoming 35 U.S.C. § 112 (2) objection:

Claim 14 is amended to state that the steering control subsystem is connected to the yaw gyroscope. The yaw gyroscope output can thus be used as claimed.